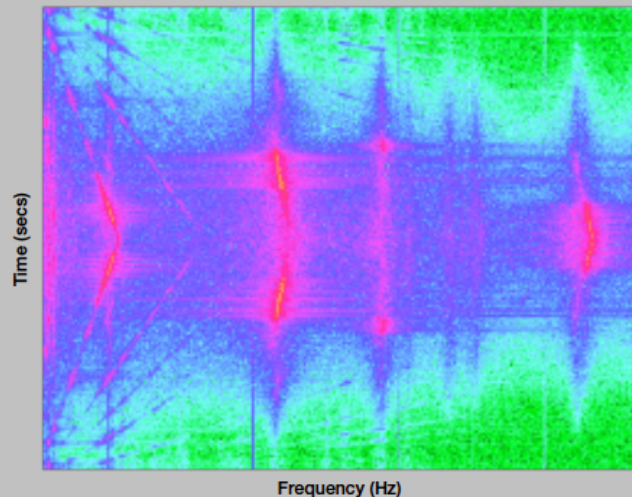
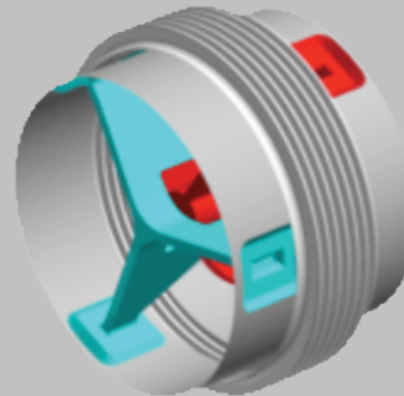


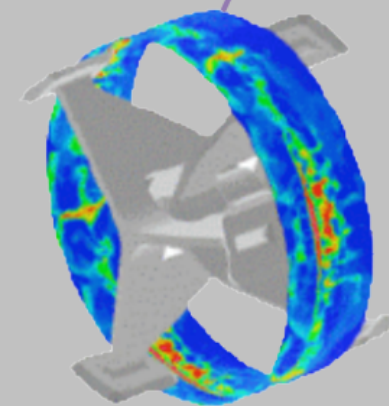
- ◆ Flexible joints with metal bellows are susceptible to flow-induced vibration.
- ◆ Computational Fluid Dynamics and highly instrumented waterflow testing of an SLS Ball Strut Tie Rod Assembly (BSTRA) are performed to characterize unsteady flow's participation in closed-loop fluid structure interaction.



Spectrogram of bellows alternating strain during SLS
BSTRA Flex Joint Waterflow Test



BSTRA flexible joint with metal bellows
covered by partial flowliners



CFD velocity magnitude for BSTRA
flexible joint with partial flowliners